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Growth Through Agricultural Progress

THE HOUSEHOLD MARKET FOR GRAIN PRODUCTS

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THE HOUSEHOLD MARKET FOR GRAIN PRODUCTS 1/

This is another article in a series dealing with the structure of the household market for major foods. 2/ These articles are based mainly on published data from the 1955 Household Food Consumption Survey 3/ in which statistics pertaining to the eating habits of over 6,000 households throughout the country were collected and tabulated. In summary, findings concerning the household market for grain products are:

1. About a tenth of housekeeping households' expenditures for food at home in the spring of 1955 went for grain products, including somewhat less than 2 percent for flour and mixes, 2 percent for cereals and pastes (macaroni, spaghetti, noodles) and about 7 percent for commercial bakery products.

2. Urban households in every region used the smallest quantity of grain products, farm households the largest.

3. Because of relatively fewer urban people in the South, coupled with lower incomes and strong preferences for these foods, overall consumption of grain products averaged highest in that region. Average use of cornmeal was 16 times as great in the South as in any other region; use of rice was 3 times as great.

4. Of the 20-percent decline in average consumption of all grain products from 1942 to 1955, 2 to 3 percent can be attributed to increased urbanization, 8 to 9 percent to higher incomes, and the remainder to factors underlying changes in consumption at each real income level within urbanization catagories.

5. Prospective increases in degree of urbanization, income, and availability of other foods indicate a continuation of the downward trend. There are no indications yet as to the level and time when U. S. average consumption of grain products will stabilize.

Household Market in 1955

In the spring of 1955 about 10 percent of the money spent for food at home by housekeeping households went for grain products -- flour, breakfast cereals, cornmeal, rice, bakery products, and others. On a flour equivalent basis 4/ this amounted to 9.4 pounds per household, or 2.8 pounds per person,

1/ By Robert J. Lavell, Statistical and Historical Research Branch, AMS.

2/ In the National Food Situation starting with the October 1956 issue (NFS-78).

3/ Food Consumption of Households in the United States, in the Northeast, in the North Central Region, in the South, and in the West, Reports 1-5, 1955 Household Food Consumption Survey.

4/ Includes the dry weight of flour and cereal in prepared products and baked goods.

during the week of the survey. Less than a third of this was bought as flour, a little over a fourth as cereals and pastes, and about 40 percent as commercial bakery products.

Since consumption of these products varied from household to household, these overall measures do not show the structure of the market: Who buys how much of what? But the detailed data from the survey enable us to sort out systematic variations in consumption associated with variations in certain socio-economic elements such as family size, income, degree of urbanization, and region in which the family lived.

Measuring the Structure

The 9.4 pound figure for U. S. consumption of all grain products mentioned previously averages wide variations in consumption from region to region, from one urbanization category to another, and from one income level to the next. A first approximation of the effect of region on consumption of grain products can be made by comparing statistics on average consumption per household in households grouped by region:

Region	Average use per household during survey week (Pounds)
Northeast	7.06
North Central Region	8.57
South	13.00
West	8.18

If region alone were the only factor affecting consumption of grain products, it could be fairly said that living in the South caused households to use almost twice as much of grain products as living in the Northeast did. But family size, income, and degree of urbanization also influenced consumption of grain products. Variation among these factors from one regional group to the next account for only part of the differences in average consumption per household.

Elimination of variations in consumption due to differences in average household size is a step toward finding the effect of region alone. This is done by dividing average household consumption in each group by the average household size of the group, giving average consumption per person in each group:

Region	Average use per person during survey week (Pounds)
Northeast	2.21
North Central Region	2.59
South	3.69
West	2.60

This puts the regional groups on approximately the same basis so far as household size is concerned, though there still remains the relatively small effect of differences in proportion of children and old people, who usually eat less than active adults.

Each regional group average is based on all surveyed households in the region -- all urban households and all rural nonfarm and all farm households. Because degree of urbanization is associated with relatively large variations in consumption of grain products, differences in proportion of households in each of the urbanization categories from one regional group to the next also affect regional averages. When households in each regional group are further subdivided according to urbanization category, we get the following average per person consumption of grain products in each subgroup:

Region	Urban (Pounds)	Rural Nonfarm (Pounds)	Farm (Pounds)
Northeast	2.06	2.46	3.00
North Central Region	2.38	2.72	3.11
South	2.94	4.06	4.74
West	2.43	2.93	3.06

This tabulation indicates that urban households on the average used the least quantity of grain products per person, and farm households the most, within each region. Consumption in the South still shows up much larger than in the other regions, though regional differences are not so great within each urbanization category as among averages of all households in each region combined. This results from differences in the proportion of households in each urbanization category. The South had the smallest proportion of urban households (users of least grain products per person)and the largest proportion of farm households (users of the most). The Northeast had the largest proportion of urban households and the smallest proportion of farm households.

A further breakdown of each subgroup to show average consumption per person of grain products by groups of households at successively higher levels of income gives the variation associated with differences in family income shown in the following tabulation.

Income level 5/	Northeast (Pounds)	North Central Region (Pounds)	South (Pounds)	West (Pounds)
		Urban households		
Under $2,000	1.89	2.29	3.31	2.23
$2-3,000	2.14	2.21	3.14	2.75
3-4,000	2.13	2.56	2.86	2.74
4-5,000	2.02	2.52	2.76	2.45
5-6,000	2.26	2.38	2.71	2.29
6-8,000	2.20	2.39	2.51	2.52

5/ Money income after income taxes.

Income level	Northeast (Pounds)	North Central Region (Pounds)	South (Pounds)	West (Pounds)
	Rural nonfarm households			
Under $2,000	3.16	2.76	4.57	3.43
$2-3,000	3.06	2.96	4.02	2.90
3-4,000	2.21	3.03	3.95	
4-5,000	2.28	2.50	3.84	2.98
5-6,000	2.57	2.75	3.56	
6-8,000	2.18	2.77	3.24	2.63
	Farm households			
Under $2,000	3.40	3.41	5.12	3.19
$2-3,000	3.06	3.26	4.44	3.15
3-4,000	2.74	3.28	4.22	
4-5,000	2.70	3.08	3.95	3.07
5-6,000	2.99	2.92	4.22	
6-8,000	3.02	2.88	3.56	2.62

These data indicate that per person use of all grain products, on a flour equivalent basis, tended to be smaller in households at successively higher levels of income except for urban households in the Northeast and the North Central Region. Since the urban category had the smallest proportion of low-income households in each region, and the farm category the largest 6/, it follows that differences in distribution of households by income were partly responsible for differences in average consumption rates in the several urbanization categories within regional groupings. Here, too, consumption rates were greater in the South than in the other regions in the three urbanization categories, even at the same income levels. These regional variations, as well as the urbanization and income variations, are reasonably true measures of the influence of these economic and social factors on consumption rates of grain products.

The preceding analysis demonstrates the wide variation in consumption rates of grain products in the U. S. household market in the spring of 1955. But this is only a bare outline of the structure because the factors mentioned influenced consumption of individual items in different ways. For instance, consumption per person of flour decreased as income increased, but that of bakery products increased (table 4). We turn next to consideration of the market structure for more meaningful groupings of items — those grouped by use and content.

Structure for Groups of Items

The effect of income, of degree of urbanization, and of region on consumption differed for each group of foods made from grain. To simplify the analysis, data from the North Central Region only will be used to illustrate the effects of income and of urbanization on consumption.

Family income influenced consumption rates in two ways. Higher incomes caused a greater proportion of households to use bakery products, ready-to-

6/ About 2/3 urban, 3/4 rural nonfarm, and 7/8 farm households in the South, had money incomes of less than $4,000. In the other regions roughly 1/3 urban, 1/2 rural nonfarm, and 2/3 farm households had money incomes below that level.

Table 4.- Consumption per person of grain products in North Central Region, in urban, rural nonfarm, and farm households, grouped by income, in a week, spring 1955 1/

Urbanization and family income	Flour 2/	Flour equivalent of bakery products	Breakfast cereals			Rice	Cornmeal 3/	Pastes 4/
			Total	Ready-to-eat	Hot			
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
Urban								
Households of 2 or more persons	0.51	1.33	0.25	0.19	0.07	0.05	0.05	0.14
Under $2,000	.51	1.25	.24	.17	.07	.05	.04	.11
$2-3,000	.61	1.04	.26	.20	.05	.05	.05	.11
3-4,000	.53	1.42	.25	.18	.07	.08	.09	.14
4-5,000	.59	1.36	.27	.20	.07	.04	.06	.14
5-6,000	.59	1.28	.26	.20	.06	.02	.04	.13
6-8,000	.43	1.40	.27	.20	.07	.04	.03	.14
8-10,000	.53	1.18	.19	.17	.03	.03	.00	.22
10,000 and over	.28	1.37	.19	.15	.04	.06	.02	.18
Rural nonfarm								
Households of 2 or more persons	.84	1.33	.31	.23	.09	.03	.04	.11
Under $2,000	1.06	1.17	.34	.18	.16	.01	.09	.06
$2-3,000	.93	1.39	.33	.24	.09	.03	.05	.15
3-4,000	1.23	1.21	.33	.23	.10	.05	.02	.13
4-5,000	.73	1.27	.28	.24	.04	.02	.03	.09
5-6,000	.52	1.55	.36	.29	.07	.04	.02	.19
6,000 and over	.56	1.72	.31	.22	.09	.03	.03	.07
Farm								
Households of 2 or more persons	1.44	1.03	.36	.24	.12	.04	.08	.10
Under $2,000	1.74	.94	.38	.22	.16	.05	.18	.08
$2-3,000	1.60	1.07	.39	.27	.12	.04	.02	.09
3-4,000	1.68	1.00	.32	.22	.10	.03	.08	.11
4-5,000	1.40	1.05	.34	.24	.10	.01	.04	.10
5-6,000	1.05	1.19	.42	.29	.12	.06	.01	.11
6,000 and over	1.25	1.06	.35	.27	.09	.03	.02	.11

1/ Source: 1955 Household Food Consumption Survey, Report 3. Per person averages derived from household averages using average household size based on 21 meals at home equivalent to one person. 2/ Includes small amount of flour equivalent of cake mix and other mixes. 3/ Includes hominy grits. 4/ Includes macaroni, spaghetti, and noodles.

eat breakfast cereals, and flour mixes, but a smaller proportion to use flour, hot breakfast cereals, rice, cornmeal and paste products.

Family income also influenced the quantities used in each household. Average use per person within each group of households depends on these two factors: (1) The proportion using in the group and (2) the average amount used by the using households.

Considering only urban households in the North Central Region for the moment, it can be seen in table 4 that use per person of flour bought as such 7/ generally was smaller at successively higher income levels. A smaller proportion of high-income households than of low-income households used flour, but more of the reduction was accounted for by a decline in the average quantity of flour those households used. On the other hand, per person use of all bakery products, on a flour equivalent basis, was greater in households at successively higher levels of income Both the proportion of households that used bakery products and the average quantity they used increased with income and accounted equally for the increase. 8/

The proportion of households using ready-to-eat cereals increased with income, but the average amount used in using households decreased. Thus per person use was greatest in the middle income groups. Use of hot breakfast cereals in urban households in the North Central Region varied little from one income level to another.

Compared with per person use of rice and cornmeal in the South, relatively little of these products were used in the North Central Region. What little variation in per person use associated with differences in income that occurred in the North Central Region (a slight decrease in the upper income groups) came almost entirely from a drop in the proportion using these items in the upper income groups. The average quantity used by using households was roughly the same at all income levels. 9/

The increase in use per person of paste products (macaroni, spaghetti, noodles) with income resulted from a rise in both proportion using and average amount used by users.

The preceding analysis sheds light on some of the factors behind variations associated with different levels of income in per person use of several groups of grain products. Another source of the variation, particularly in use of flour and bakery products, is found in differences in baking practices.

7/Includes flour in flour mixes.

8/For more details on use of wheat see "Some Highlights of 1955 Food Consumption Survey," The Wheat Situation, April 1957.

9/For more details on use of rice see "Rice Highlights in the 1955 Food Consumption Survey," The Rice Situation, December 1957.

These differences apparently developed either from economic pressure or from cultural backgrounds that held out against modern food marketing developments. The 1955 Household Food Consumption Survey yielded data on home baking practices as well as use of bakery products. 10/

The proportion of urban households in the North Central Region baking bread or rolls and the proportion baking quick breads was greatest in the lowest income group and decreased in successively higher income groups (table 5). The proportion baking cakes and pie crusts at home increased with income. However, the actual quantity of all baking at home generally decreased as income increased. This explains in part both the decrease in use of flour and the increase in use of commercial bakery products in the upper income groups.

Degree of urbanization, as well as the other conditions we have mentioned, influenced differently the consumption of each of the seven groups of grain products. This factor is tied in with a number of circumstances that influence consumption of grain products, such as nearness of food marketing facilities, prevalence of home production of food, and eating habits traditionally associated with living on farms or in town. The following categories were used: Urban, for households in cities and towns of 2,500 or more and fringe areas around large cities; rural nonfarm, for households in smaller communities and in open country but not operating farms; and farm operator households.

Let us first consider patterns of consumption of grain products with respect to income, that is, the relative increase or decrease in consumption per person from one income group to the next. In general, these patterns were much the same for all urbanization categories, but the level of consumption differed. For example, though flour used as such decreased with income in all urbanization categories in the North Central Region (table 4), farm households with incomes of less than $2,000 used three and one-half times as much per person as urban households at the same money income level, and rural nonfarm households used twice as much per person as the urban households. At the same income level urban households used 1.25 pounds per person flour equivalent of bakery products, rural nonfarm households used 1.17 pounds, and farm households only .94 pound.

At each money income level, farm households generally used the most of each group of grain products except bakery goods, paste products, and rice, and urban households used the least, with the same exceptions. But comparisons among urbanization groups at the same money income level do not show the full affect of degree of urbanization. Money income was used as a convenient basis on which to group households in the survey to reflect several levels of living, though the same money income did not necessarily indicate the same level of

10/ Orshansky, Mollie, "Home-baking," Family Economic Review ARS, March 1958 and Home Baking by Households in the U. S. -- by Region, Report 13, Household Food Consumption Survey, 1955.

living in all urbanization categories. Nonmoney income, such as home produced food and other income in kind, which was more common in farm and rural nonfarm households, contributed much to the level of living. To allow for these differences, urban households at the $3-4,000 money income level, for example, can be compared with rural nonfarm households at the $2-3,000 and $3-4,000 money income levels, and with farm households with money income of less than $2,000, from $2-3,000, and from $3-4,000. These comparisons tend to accentuate urbanization differences of those items for which consumption decreased with income, such as flour, and to minimize differences for those for which consumption increased with income, such as bakery products.

Part of the reason for variation in levels of consumption of flour and of bakery products from one urbanization category to another is found in differences in home baking practices. For example, over 90 percent of farm households in the North Central Region did some home baking during the survey week, but less than three-fourths of the urban households did (table 5).

The effect of region on consumption of the seven groups of grain products is illustrated in table 6 by per person consumption data for groups of urban households at the same money-income levels in the several regions. For example, data in table 6 indicate that per person consumption of flour used as such, of rice, and of cornmeal was generally much higher in the South than in the other regions, and per person consumption of flour in bakery products, of ready-to-eat breakfast cereals, and of paste products generally was lowest in the South. Consumption of cornmeal is a case of extreme variation among regions. Urban households at the $2-3,000 income level in the South used .58 pound per person of cornmeal, but urban households at the same income level in the other regions used less than .05 pound per person.

Part of the regional variation in consumption is due to regional preferences for individual products. These preferences are based on (1) differences in present and past availability and (2) on prices for the same and competing foods; or (3) on the cultural background of the population, or (4) climate. Part is based on other factors such as home baking practices that influence consumption of grain products. Data in table 5 indicate that households in the Northeast did the least home baking and those in the South the most. Regional variations in home baking practices showed up in all urbanization categories, but they were greatest among urban households.

Absolute size of the market for these groups of grain products in the several regions is also an important consideration. Because of differences in "mix" of urbanization and income in each region, and because of regional preferences, the size of the market was not always proportional to the population. Though the South had only 32 percent of the housekeeping population in the spring of 1955, that region used 42 percent of all grain products (on a flour equivalent basis). The Northeast, with 27 percent of the population, used only 21 percent of the total grain products used at home during the survey week. There was much greater disparity between proportion of population and

Table 5.- Percentages of households baking at home by household size, income, urbanization, and region in a week, spring 1955 1/

Item	Baking at home			
	Any	Bread, rolls	Quick bread	Cake, pie
	Percent	Percent	Percent	Percent
All urbanizations combined, in the United States				
All households, by household size	74	9	53	52
1-person households	45	3	32	24
2-person households	65	8	43	42
3- and 4-person households	78	9	55	56
5 or more person households	88	14	69	67
Households of 2 or more persons, by income	77	10	55	54
Under $2,000	83	12	70	50
$2-4,000	79	11	58	56
4-6,000	76	9	51	57
6,000 and over	73	8	48	54
All urban households, by region				
Northeast	50	4	27	34
North Central	72	7	43	54
South	80	6	71	46
West	75	7	54	51
All rural nonfarm households, by region				
Northeast	74	13	36	61
North Central	79	15	45	60
South	92	6	86	55
West	76	20	56	54
All farm households, by region				
Northeast	88	21	48	74
North Central	90	34	58	77
South	97	10	95	68
West	89	32	78	75

1/ Orshansky, Mollie, "Home Baking," Family Economic Review, ARS, March 1958 and Home Baking by Households in the United States -- by Region, Report 13, 1955 Household Food Consumption Survey.

Table 6.--Consumption per person of grain products in urban households by selected income groups and by region, in a week, spring 1955 1/

Income group and region	Flour 2/	Flour equivalent, bakery products	Breakfast cereals			Rice	Cornmeal 3/	Pastes 4/
			Total	Ready-to-eat	Hot			
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Households of 2 or more persons								
United States	0.55	1.23	0.22	0.16	0.06	0.09	0.14	0.15
Northeast	.31	1.21	.22	.16	.05	.07	.01	.21
North Central Region	.51	1.33	.25	.19	.07	.05	.05	.14
South	.88	1.07	.19	.13	.06	.18	.48	.09
West	.67	1.23	.26	.16	.09	.07	.02	.10
Household with $2-3,000 incomes								
United States	.76	1.08	.22	.15	.06	.17	.28	.15
Northeast	.27	1.26	.22	.16	.06	.07	.03	.26
North Central Region	.61	1.04	.26	.20	.05	.05	.05	.11
South	1.01	.91	.21	.13	.07	.28	.58	.12
West	1.15	1.11	.17	.12	.05	.12	.04	.11
Households with $4-5,000 incomes								
United States	.51	1.27	.25	.19	.07	.07	.08	.16
Northeast	.23	1.22	.25	.20	.06	.06	---	.24
North Central Region	.59	1.36	.27	.20	.07	.04	.06	.14
South	.85	1.15	.22	.17	.06	.12	.32	.09
West	.65	1.28	.26	.17	.09	.07	.02	.11
Households with $6-8,000 incomes								
United States	.46	1.37	.24	.19	.06	.06	.06	.13
Northeast	.36	1.35	.21	.16	.04	.07	.01	.17
North Central Region	.43	1.40	.27	.20	.07	.04	.03	.14
South	.60	1.32	.19	.16	.03	.10	.21	.07
West	.60	1.33	.32	.23	.09	.08	.04	.07

1/ Source: 1955 Household Food Consumption Survey, Report 1. Per person average derived from household averages using average household size based on 21 meals at home equivalent to one person. 2/ Includes small amount of flour equivalent of cake mix and other mixes. 3/ Includes hominy grits. 4/ Includes macaroni, spaghetti, and noodles.

proportion of the market for some items. Households in the South used 61 percent of the rice used by the housekeeping population and 92 percent of the cornmeal. Households in the Northeast used only 1 percent of the cornmeal, but 41 percent of pastes. The size of the market for the other grain products in each region was more nearly proportional to its population.

Changes Since 1942

Per capita use of wheat flour has fallen almost 50 percent during the last 50 years. 11/ During that period, consumption rates of most of the other cereals declined as much, if not more. Some of the kinds of changes in the structure of the household market that contributed to this decrease can be ascertained by comparing data from the 1955 survey with data from a national survey of family food consumption made in 1942. 12/

That such survey data can be used in analyzing changes in consumption recorded by time series data is demonstrated by the fact that the two measures indicate practically the same change in consumption during the 13-year period.

Use per person of wheat flour in one week measured by:	1942 Lb.	1955 Lb.	Change Pct.
Time series data	3.01	2.36	-22
Survey data 13/	2.87	2.26	-21

Only U. S. averages for each urbanization category and at each income level can be compared from the two surveys, as in table 7, because the 1942 data were not separable by region. In a week in the spring of 1942, 3.55 pounds of flour in all forms were used at home per person in U. S. housekeeping households. In a week in the spring of 1955, the average had fallen to 2.84 pounds per person, a 20 percent decrease in 13 years. How did the structure of the market change to cause such a decline? Within each urbanization group the patterns of consumption with respect to income were practically the same in 1942 and 1955 for all the grain product groups, but the level of use at equivalent income levels differed. A big part of the decline in total flour equivalent came from lower average use of almost all grain products at

11/ Supplement for 1956 to Consumption of Food in the United States, AH No. 62 and table 3 of this issue of The National Food Situation.

12/ Family Food Consumption in the United States, Spring 1942. Misc. Pub. 550. Problems in comparing the two sets of data arise from differences in coverage. Survey data include only flour used at home by housekeeping households whereas time series data (disappearance data) include all flour used by civilians in the U. S., including that used by persons not in housekeeping households and that eaten away from home by the entire population.

13/ Total flour equivalent of all grain products less flour equivalent of cornmeal and other corn products, oat meal, rice and rice products, popcorn, and "other" flours.

Table 7.- Consumption per person of grain products in United States households, grouped by urbanization and income, in a week, spring 1942 and spring 1955 1/

Urbanization and income	Total flour equivalent, all grain products 2/	Flour	Flour equivalent, bakery products	Other cereals and pastes						
				Total 3/	Breakfast cereals			Rice	Cornmeal 4/	Pastes 5/
					Total	Ready-to-eat	Hot			
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
1942										
All U. S. households	3.55	1.45	1.21	0.89	0.25	0.13	0.12	0.08	0.45	0.13
Urban										
Households of 2 more persons	2.69	.66	1.38	.65	Breakdown not available.					
Under $500	2.89	1.19	.80	.90						
$500-1,000	3.26	1.06	1.22	.98						
1,000-1,500	2.90	.95	1.17	.78						
1,500-2,000	2.53	.59	1.40	.54						
2,000-2,500	2.74	.68	1.45	.61						
2,500-3,000	2.57	.45	1.43	.69						
3,000-5,000	2.62	.52	1.56	.54						
5,000-10,000	2.42	.45	1.50	.47						
Rural nonfarm										
All households	4.40	2.43	.88	1.09	.25	.12	.13	.07	.68	.09
Under $500	5.30	3.10	.65	1.55	.24	.07	.17	.07	1.16	.08
$500-1,000	5.15	3.01	.67	1.47	.25	.09	.16	.10	1.04	.08
1,000-1,500	4.07	2.23	.97	.87	.27	.15	.12	.05	.44	.11
1,500-2,000	3.87	1.99	1.12	.76	.22	.13	.09	.05	.42	.07
2,000-3,000	3.92	2.05	1.01	.86	.27	.16	.11	.06	.41	.12
3,000 and over	3.31	1.61	1.01	.69	.27	.15	.12	.05	.28	.09
Farm										
All households	4.65	2.52	.57	1.56	.23	.10	.13	.07	1.20	.06
Under $500	5.00	2.76	.40	1.84	.18	.07	.11	.08	1.54	.04
$500-1,000	5.07	2.86	.49	1.72	.28	.10	.18	.06	1.32	.06
1,000-1,500	4.20	2.49	.69	1.02	.28	.14	.14	.07	.57	.10
1,500-2,000	3.95	1.87	1.16	.92	.28	.13	.15	.06	.49	.09
2,000-3,000	3.85	2.17	.81	.87	.31	.16	.15	.07	.42	.07
3,000 and over	3.26	1.77	1.00	.49	.29	.16	.13	.04	.08	.08
1955										
All U. S. households	2.84	.90	1.16	.78	.25	.17	.08	.09	.28	.13
Urban										
All households	2.42	.55	1.22	.65	.23	.16	.06	.10	.14	.15
Households of 2 or more persons	2.42	.55	1.23	.64	.22	.16	.06	.09	.14	.15
Under $2,000	2.80	.78	.95	1.07	.21	.10	.10	.21	.50	.13
$2-3,000	2.70	.76	1.08	.86	.22	.15	.06	.17	.28	.15
3-4,000	2.53	.60	1.21	.72	.24	.17	.07	.10	.18	.15
4-5,000	2.37	.51	1.27	.75	.25	.19	.07	.07	.08	.16
5-6,000	2.39	.55	1.30	.54	.23	.18	.05	.05	.07	.15
6-8,000	2.37	.46	1.37	.54	.24	.19	.06	.06	.06	.13
8-10,000	2.18	.48	1.23	.47	.19	.14	.04	.05	.03	.17
10,000 and over	2.15	.34	1.31	.50	.20	.16	.04	.07	.05	.14
Rural nonfarm										
All households	3.22	1.20	1.16	.86	.27	.18	.09	.08	.36	.10
Households of 2 or more persons	3.21	1.20	1.15	.86	.27	.18	.09	.08	.36	.10
Under $2,000	4.07	2.00	.74	1.33	.23	.11	.12	.15	.80	.08
$2-3,000	3.54	1.51	1.03	1.00	.29	.18	.11	.13	.42	.12
3-4,000	3.21	1.12	1.30	.79	.26	.19	.07	.05	.33	.10
4-5,000	2.87	.94	1.22	.71	.27	.21	.06	.05	.24	.10
5-6,000	2.93	.82	1.38	.73	.36	.26	.10	.05	.13	.13
6-8,000	2.55	.60	1.42	.53	.26	.19	.06	.02	.10	.11
8-10,000	2.48	.60	1.31	.57	.32	.23	.09	.03	.09	.08
10,000 and over	2.50	.72	1.19	.59	.36	.31	.05	.04	.07	.06
Farm										
All households	3.86	1.82	.86	1.18	.27	.17	.11	.10	.68	.09
Households of 2 or more persons	3.86	1.82	.86	1.18	.27	.17	.10	.10	.68	.08
Under $2,000	4.59	2.29	.61	1.69	.22	.12	.10	.14	1.22	.07
$2-3,000	3.82	1.86	.91	1.05	.31	.19	.12	.09	.49	.09
3-4,000	3.52	1.64	.95	.93	.29	.19	.10	.08	.42	.10
4-5,000	3.27	1.50	1.05	.72	.30	.20	.10	.05	.21	.09
5-6,000	3.17	1.22	1.11	.84	.34	.23	.11	.08	.26	.10
6-8,000	3.13	1.33	1.09	.71	.28	.21	.07	.07	.22	.10
8-10,000	2.79	1.19	.94	.66	.35	.27	.09	.04	.03	.17
10,000 and over	2.67	.95	1.05	.67	.35	.21	.14	.07	.08	.14

1/ 1955 Household Food Consumption Survey, Report 1; Family Food Consumption in the United States, Spring 1942, Misc. Pub. 550; and 1948 Food Consumption Surveys, Preliminary Report No. 12, November 30, 1949. Per person averages derived from household averages using average household size based on 21 meals at home equivalent to one person. 2/ Includes a small amount of flour in cake mixes and other mixes. 3/ Also includes other cereals (popcorn, baby cereals, hominy, barley, buckwheat, grits) in 1955. 4/ Includes hominy grits. 5/ Includes macaroni, spaghetti, and noodles.

each real income level. Only the level of use of breakfast cereals and paste products was the same in all urbanization groups in both years.

In farm households and in rural nonfarm households, more bakery products, on a flour equivalent basis, were consumed in 1942 than in 1955 at comparable real income levels. In urban households, use of bakery products was at a lower level in 1955, but use of flour, including mixes, was at about the same level, reflecting the increased popularity of mixes. Use of flour as such by households in the other two urbanization categories decreased at all income levels.

The decline in U. S. average use of grain products from the spring of 1942 to the spring of 1955 resulted from changes in several of the factors that influenced consumption. Part came from a relatively large net shift in the population from farm to rural nonfarm and a slight increase in the proportion of the population in the urban category. The effect of these population shifts has been measured by weighting together the 1955 consumption rates for each urbanization group by the relative importance of that group in 1942 and comparing the result with average consumption for all urbanizations combined in 1955. This computation indicated that such population shifts alone accounted for one-eight of the total decline in consumption of grain products during the 13-year period.

Another part came from shifts to higher real income levels. In 1942 over a third the families in the U. S. had money incomes after taxes of less than $2,000 in 1954 dollars. In 1955 only about a sixth of the households were in that income bracket. The effect of shifts of households to higher real incomes was measured in a manner similar to that used for urbanization shifts. That is, by cumulative weighting of 1955 consumption rates for each income bracket by the 1942 proportion of households in that bracket, then weighting each urbanization total by its 1942 relative importance and comparing this result with average consumption for all urbanizations in 1955. According to this calculation, income shifts accounted for 40 to 45 percent of the total decline in per person consumption of grain products.

The remaining 40 to 45 percent of the total decline was caused by changes in patterns of consumption with respect to income and in the level of consumption for all income groups. Since patterns of consumption changed very little from 1942 to 1955, as mentioned earlier, almost all of this part of the decline was caused by changes in levels of consumption. Changes in level of use by farm households accounted for 7 percentage points of this 40 to 45 percent total change, changes by rural nonfarm households accounted for 10, and changes in level of use by urban households accounted for the remainder.

Prospects for the Future

All the population shifts from 1942 to 1955 were into urbanization groups that used less grain products. These trends are expected to continue, though not at the same rate. By 1975 the farm population is expected to be only 7 or 8 percent of the total. 14/ The trend towards a greater proportion of households in the urban category may increase because, with increased population, many places now considered rural nonfarm will become populous enough to be included in the urban category, in addition to families moving to cities from the other urbanization categories. It is difficult to predict when urbanization shifts will stop. As long as they continue they are likely to have a negative influence on consumption of grain products.

Real incomes are expected to increase 50 percent from 1955 to 1975. 15/ This will have a considerable effect on average consumption per person of grain products for the U. S. as a whole; it would mean that the proportion of households in the low income groups would be much smaller -- and they are the big users of grain products.

The patterns of consumption of all grain products combined with respect to income for each urbanization did not change much from 1942 to 1955. There is no reason to expect any great changes in the near future, but the level of consumption at all income levels will probalby continue to decline. Consumption has been shifting away from grain products to other foods for some time, reflecting greater availability of other foods, hard-to-define preference changes and the need for fewer calories. This decline may slow down. The decline in consumption of given products in urban households was less than in the other urbanizations, and there will be fewer of the other households.

There are a few factors that might work in the direction of a temporary reversal of the trend in consumption of grain products, or even stop the long-time decline. Short supplies of livestock or fruits and vegetables would probably cause an increase in consumption of grain products, but it would likely be only temporary. Nutritional findings or technical developments favoring consumption of grain products might show up. There might even be an increased need for calories resulting from more active leisure time activities. Admittedly, these factors are not much on which to pin hope for tempering or stopping the downtrend in consumption of grain products. As yet, there appears to be no basis for judging at what level grain consumption per person will stabilize in a prosperous economy.

14/ In "The Farm Population and the Agricultural Labor Force in 1975," Applications of Demography; The Population Situation in the U. S. in 1975. Edited by Donald J. Bogue. Published by Scripps Foundation for Research in Population Problems (Miami University) and Population Research and Training Center (University of Chicago). 1957.

15/ Daly, Rex F. "Projections of United States Demand for Food And Fiber in 1975," Paper submitted for hearings on Policy for Commercial Agriculture, Joint Economic Committee of the Congress, Nov. 22, 1957.